REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 2-10 and 12-22 are in this application. Claims 1 and 11 have been cancelled. Claims 2-6, 8-10, and 12-20 have been amended. Claims 21-22 have been added to further recite the present invention. In addition to the amendments discussed below, the claims have also been amended to alternately recite the present invention.

The Examiner rejected claims 1-3, 6-7, 9-13, 15, and 17-20 under 35 U.S.C. §102(e) as being anticipated by Brooks (U.S. Patent Publication No. 2003/0056217). As noted above, claims 1 and 11 have been cancelled. For the reasons set forth below, applicant respectfully traverses this rejection as applied to the remaining claims.

Claim 2 has been amended and recites:

> "a first memory location to store a value that represents a maximum number of channels that can be received by an interface;
> "a second memory location to store a value that represents a current number of different channels that are being sent to the interface; and
> "a state machine connected to the first and second memory locations, the state machine to:
> "receive a channel request message from a device connected to the interface, the channel request message to identify a requested channel; and
> "determine whether the value stored in the first memory location is equal to the value stored in the second memory location each time a channel request message is received from the device."

In rejecting the claims, the Examiner pointed to processor 204 of controller 112 shown in FIG. 3 of the Brooks reference as constituting the state machine required by

claim 2. In addition, applicant assumes the Examiner would read memory 206 shown in FIG. 3 of the Brooks reference to constitute the first and second memory locations required by claim 2.

However, from what can be determined, there is nothing in Brooks that teaches or suggests that processor 204 determines whether switching unit 104 is outputting the maximum number of channels (whether the value stored in the first memory location is equal to the value stored in the second memory location) "each time" a channel request message is received from the device as required by claim 2.

As noted by the Examiner, paragraph 0034 of Brooks teaches that blocking can be performed to prevent a device from receiving a requested channel when no available carrier can be assigned by controller 112. The Examiner argued that in order to perform blocking, processor 204 of controller 112 must inherently determine whether the current number of channels being output by switching unit 104 is equal to the maximum number of channels that can be output by switching unit 104.

However, even if Brooks inherently determines whether the current number of channels being output by switching unit 104 is equal to the maximum number of channels that can be output by switching unit 104, there is nothing in Brooks that teaches or suggests that this determination is made "each time" a channel request message is received by controller 112.

As shown in FIG. 6 of Brooks, each time a channel request message is received, controller 112 determines in step 508 whether another device is currently receiving the requested channel. If another device is currently receiving the requested channel, then controller 112 outputs control information in steps 514 and 518 to the device that requested the channel so that the device can tune into and receive the requested channel.

On the other hand, if no other device is currently receiving the requested channel, then processor 204 of controller 112 assigns a new carrier and outputs the requested channel to the device in steps 510-516. Since a new carrier is assigned in step 510, the determination of whether switching unit 104 is already transmitting the maximum number of channels must be made before step 510 and the steps that cause an additional carrier to be assigned.

One skilled in the art would be motivated to determine whether switching unit 104 is already transmitting the maximum number of channels after step 508 and before step 510. This is because if the determination is made after step 508 and before step 510, then the determination of whether switching unit 104 is already transmitting the maximum number of channels is made only when an additional carrier/channel is to be added.

On the other hand, one skilled in the art would not be motivated to determine whether switching unit 104 is already transmitting the maximum number of channels before step 508 because to do so would be to make the determination many times when it is unnecessary to do so. In other words, if the requested channel is already being output to another device, there is no need for another carrier and therefore no need to determine whether or not switching unit 104 is already transmitting the maximum number of channels.

One skilled in the art would not be motivated to make a determination that is not needed and unnecessary. As a result, one skilled in the art would not be motivated to determine whether or not switching unit 104 is transmitting the maximum number of channels before step 508, but instead would only be motivated to determine whether or not switching unit 104 is transmitting the maximum number of channels after step 508 and before step 510.

Since one skilled in the art would only be motivated to determine whether or not switching unit 104 is transmitting the maximum number of channels after step 508 and before step 510, the Brooks reference fails to teach or suggest that the determination is made "each time" a channel request message is received. As a result, claim 2 is not anticipated by Brooks. In addition, since claims 3, 6-7, 9-10, and 20-21 depend either directly or indirectly from claim 2, claims 3, 6-7, 9-10, and 20-21 are not anticipated by Brooks for the same reason that claim 2 is not anticipated by Brooks.

With further respect to new claim 21, which depends from claim 2, this claim recites:

> "wherein the device transmits a leave message to the state machine before transmitting a channel request message to the state machine, the leave message identifying a channel which is no longer to be transmitted to the device."

From what can be determined, there is nothing in the Brooks reference that teaches or suggests that a leave message is output to processor 204 of controller 112 by a device 128 before the device 128 outputs a channel request message to controller 112. Instead, Brooks teaches in FIG. 5 that device 128 outputs a channel request message to processor 204 of controller 112 that identifies both the requested channel and the old channel. Thus, since Brooks fails to teach or suggest outputting a leave message before the channel request message is output, claim 21 is not anticipated by Brooks for this additional reason.

Claim 12 has been amended and recites:

> "receiving a channel request message from a device connected to the interface, the channel request message to identify a requested channel; and
> "determining whether the interface is currently receiving a maximum number of channels that can be received by the interface each time a channel request message is received from the device."

As noted above, Brooks fails to teach or suggest that processor 204 of controller 112 determines whether the interface is currently receiving a maximum number of channels "each time" a channel request message is received. As a result, claim 12 is not anticipated by Brooks. In addition, since claims 13, 15, 17-20, and 22 depend either directly or indirectly from claim 12, claims 13, 15, 17-20, and 22 are not anticipated by Brooks for the same reason that claim 12 is not anticipated by Brooks.

With further respect to new claim 22, which depends from claim 12, this claim recites:

> "wherein before each channel request message is output, the device outputs a leave message, the leave message identifying a channel which is no longer to be transmitted to the device."

From what can be determined, there is nothing in the Brooks reference that teaches or suggests that a leave message is output to processor 204 of controller 112 by a device 128 before the device 128 outputs a channel request message to controller 112. Instead, Brooks teaches in FIG. 5 that device 128 outputs a channel request message to processor 204 of controller 112 that identifies both the requested channel and the old channel. Thus, since Brooks fails to teach or suggest outputting a

leave message before the channel request message is output, claim 22 is not anticipated by Brooks for this additional reason.

The Examiner also rejected claims 4-5 and 14 under 35 U.S.C. §103(a) as being unpatentable over Brooks in view of Sparrell et al. (U.S. Patent Publication No. 2004/0268406). Claims 4-5 depend indirectly from claim 2 and are patentable over Brooks in view of Sparrell for the same reasons that claim 2 is not anticipated by Brooks.

Further, the Sparrell reference also fails to teach or suggest that "the state machine stops transmission of the old channel" as required by claim 4. Claim 4 has been amended and recites that:

> "the state machine stops transmission of the old channel to the device each time the device is determined to be currently receiving an old channel, and the value stored in the first memory location has been determined to be equal to the value stored in the second memory location."

In rejecting the claims, the Examiner pointed to paragraph 0077 of Sparrell, which teaches that when all available network resources are being used, a first user (dad) can "steal" the network resources allocated to a second user (mom). The stealing is allowed because the users (dad and mom) have actual knowledge as to how the resources are being utilized. Thus, when informed that no resources are available, a user can authorize stealing because the user has actual knowledge that an allocated resource is not being used.

One skilled in the art, however, would not be motivated to combine the teachings of Sparrell with Brooks. The cited section of Sparrell is directed to a user (dad) who is not using any network resources (see paragraph 0075), and finds that no network resources are available when he wants to use a resource. Because the first

user (dad) has no resource available and actual knowledge that the second user (mom) is not watching TV, the first user (dad) can steal a network resource from the second user (mom).

Claim 4, however, is directed to a device which is currently using a network resource and, therefore, has no need to steal. One skilled in the art would not be motivated to steal a network resource when there is no need to steal the network resource.

Further, if the teaching of Sparrell were incorporated into Brook, then even though a first user (dad) may know that a second user (mom) is not watching TV, the first user (dad) would have no idea how many other users are watching the same channel, and are thereby associated with the same channel in the assignment table 300 shown in FIG. 4 of the Brooks reference. In other words, as shown in FIG. 4 of Brooks, if the second user (mom) is receiving channel 2, then the second user (mom) and 11 other unrelated users are receiving channel 2.

Thus, if the first user (dad) were to steal the carrier associated with channel 2 based on the knowledge that the second user (mom) is not watching TV, then all of the other 11 unrelated users would be dropped at the same time. However, one skilled in the art would not be motivated to allow a user to steal a carrier and drop 11 unrelated users based on the knowledge that one user is not watching TV.

One skilled in the art would also not be motivated to allow a device 128 to steal a carrier "each time" the device 128 is determined to be currently receiving an old channel, and the switching unit 104 has been determined to be outputting the maximum number of carriers. This is because uncontrolled stealing would lead to an endless loop of stealing. In other words, if the first user (dad) steals the carrier, then the 11 unrelated dropped users will steal back in an endless loop.

Thus, since one skilled in the art would not be motivated to steal a carrier when no carrier is needed, would not be motivated to allow a user to steal a carrier and drop 11 unrelated users based on the knowledge that one user is not watching TV, and would also not be motivated to steal a carrier "each time" the device 128 is determined to be currently receiving an old channel and the switching unit 104 determines that the maximum number of carriers are being output, claim 4 is patentable over Brooks in view of Sparrell for this additional reason. In addition, since claim 5 depends from claim 4, claim 5 is patentable over Brooks in view of Sparrell for the same reasons that claim 4 is patentable over Brooks in view of Sparrell.

With respect to claim 14, this claim depends indirectly from claim 12 and is patentable over Brooks in view of Sparrell for the same reasons that claim 12 is not anticipated by Brooks.

Further, the Sparrell reference also fails to teach or suggest "stopping transmission of the old channel" as required by claim 14. Claim 14 has been amended and recites that:

> "when the maximum number is equal to the current number, and the device is currently receiving the old channel,
>
> "stopping a transmission of the old channel to the device each time the device is determined to be currently receiving the old channel, and the interface has been determined to be currently receiving the maximum number of channels; and
>
> "starting a transmission of the requested channel to the device after transmission of the old channel to the device has been stopped, and the interface has been determined to be currently receiving the maximum number of channels."

As noted above, one skilled in the art would not be motivated to steal a carrier when no carrier is needed, would not be motivated to allow a user to steal a carrier

and drop 11 unrelated users based on the knowledge that one user is not watching TV, and would also not be motivated to steal a carrier "each time" the device 128 is determined to be currently receiving an old channel and the switching unit 104 determines that the maximum number of carriers are being output. As a result, claim 14 is patentable over Brooks in view of Sparrell for this additional reason.

The Examiner also rejected claims 8 and 16 under 35 U.S.C. §103(a) as being unpatentable over Brooks. Claims 8 and 16 depend indirectly from claims 2 and 12, respectively, and are patentable over Brooks for the same reasons that claims 2 and 12 are not anticipated by Brooks.

Therefore, for the foregoing reasons, it is submitted that all of the claims are in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,

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